



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,570,220	02/11/86	Tetrick et al.	710	126	
	4,099,231	07/04/78	Kotok et al.	711	168	
	5,175,835	12/29/92	Beighe et al.	711	212	
	4,937,734	06/26/90	Bechtolsheim	711	202	
	4,825,416	05/25/89	Tam	365	194	
	5,083,296	01/21/92	Hara et al.	365	232.c2	
	4,792,926	12/20/88	Roberts	365	189.02	
TNT	4,953,128	08/28/90	Kawai et al.	365	194	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	D. Kawley, "SUPERFAST BUS SUPPORTS SUPERFAST TRANSACTIONS", High Performance Systems, pp 90-94 (Sept. 89)
1	H. L. Kalter et al. "A 50-ns 16Mb DRAM with a 10-ns Data Rate and On-Chip ECC", IEEE Journal of Solid State Circuits, vol. 25 No. 5, pp. 1118-1128 (Oct 1990)
	S. Watanabe et. al., "AN Experimental 16-Mbit CMOS DRAM Chip with a 100-MHz Serial READ/WRITE Mode", IEEE Journal of Solid State Circuits, vol. 24 No. 3, pp. 763-770 (June 1982)
	D.T. Wong et. al., "An 11-ns 8Kx18 CMOS Static RAM with 0.5-μm Devices", IEEE Journal of Solid State Circuits, vol. 23 No. 5, pp. 1095-1103 (Oct. 1988)
TNT	T. Williams et. al., "An Experimental 1-Mbit CMOS SRAM with Configurable Organization and Operation", IEEE Journal of Solid State Circuits, vol. 23 No. 5, pp. 1085-1094 (Oct. 1988)

EXAMINER Tan T. Nguyen	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,445,204	04/24/84	Nishiguchi	365	194	
	4,821,226	04/11/89	Christopher et al.	365	230.03	
	4,882,712	11/21/89	Ohno et. al.	365	206	
	4,951,251	08/21/90	Yamaguchi et al.	365	189.02	
	4,928,265	12/29/92	Higuchi Beighe et al.	365	189.01	
TNT	5,107,465	04/21/92	Fung et al.	365	230.08	
	5,206,833	04/27/93	Lee	365	233	
	4,953,128	08/28/90	Kawai et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	T.L. Jeremiah et. al., "SYNCHRONOUS PACKET SWITCHING MEMORY AND I/O CHANNEL," IBM Tech. Disc. Bul., Vol. 24, No. 10, pp. 4986-4987 (Mar. 1982)
	L. R. Metzger, "A 16K CMOS PROM with Polysilicon Fusible Links", IEEE Journal of Solid State Circuits, vol. 18 No. 5, pp. 562-567 (Oct. 1983)
	A. Yuen et. al., "A 32K ASIC Synchronous RAM Using a Two-Transistor Basic Cell", IEEE Journal of Solid State Circuits, vol. 24 No. 1, pp. 57-61 (Feb. 1989)
	D. Jones, "Synchronous static ram", Electronics and Wireless World, vol.93, no.1622, pp. 1243-4 (Dec. 87)
	K. Nogami et. al., "A 9-ns HIT-Delay 32-kbyte Cache Macro for High-Speed RISC", IEEE Journal of Solid State Circuits, vol. 25 No. 1, pp. 100-108 (Feb. 1990)
TNT	F. Towler et. al., "A 128k 6.5ns Access/ 5ns Cycle CMOS ECL Static RAM", 1989 IEEE international Solid State Circuits Conference, (Feb. 1989)
	M. Kimoto, "A 1.4ns/64kb RAM with 85ps/3680 Logic Gate Array", 1989 IEEE Custom Integrated Circuits Conference

EXAMINER <u>TAN T. NGUYEN</u>	DATE CONSIDERED <u>08/16/01</u>
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	5,140,688	08/18/92	White et al.	713	600	
	5,018,111	05/21/91	Madland	365	233	
	4,734,880	03/29/88	Collins	711	105	
	4,183,095	01/08/80	Ward	365	189,02	
	4,975,872	12/04/90	Zaiki	365	49	
	5,016,226	05/14/91	Hiwada et al.	365	233	
TNT	5,109,498	04/28/92	Kamiya et al.	711	123	

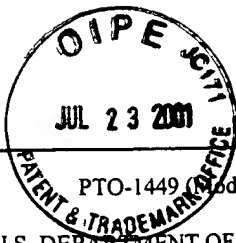
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	D. Wendell et. al. "A 3.5ns, 2Kx9 Self Timed SRAM", 1990 IEEE Symposium on VLSI Circuits (Feb 1990)
	R. Schmidt, "A memory Control Chip fo Formatting Data into Blocks Suitable for Video Applications", IEEE Transactions on Circuits and Systems, vol. 36, No. 10 (Oct. 1989)
	D. K. Morgan "The CVAX CMCTL - A CMOS Memory Controller Chip", Digital Technical Journal, No. 7 (Aug. 1988)
	T.C. Poon et. al., "A CMOS DRAM-Controller Chip Implementation", IEEE Journal of Solid State Circuits, vol. 22 No. 3, pp. 491-494 (June 1987)
TNT	E.H. Frank "The SBUS: Sun's High Performance System Bus for RISC Workstations" Sun Microsystems Inc. 1990

EXAMINER TAN T. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,205,373	May 27, 1980	Shah et al.	780	128	
I	4,845,670	Jul. 4, 1989	Nishimoto et al.	365	78	
I	4,509,142	Apr. 2, 1985	Childers	711	169	
TNT	4,685,088	Aug. 4, 1987	Ianucci	365	189.02	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	0 246 767	April 28, 1987	EPO			
TNT	0 334 552	Mar. 16, 1989	EPO			
TNT	0 276 871	Jan. 29, 1988	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	European Search Report for EPO Patent Application No. 00 101 1832
I	European Search Report for EPO Patent Application No. 89 30 2613
I	Z. Amitai, "New System Architectures for DRAM Control and Error Correction", Monolithic Memories Inc., Electro/87 and Mini/Mico Northeast: Focusing on the OEM Conference Record, pp. 1132, 4/31-3, (April 1987)
I	N. Siddique, "100-MHz DRAM Controller Sparks Multiprocessor Designs", Electronic Design, pp. 138-141, (Sept 1986)
I	H. Kuriyama et al., "A 4-Mbit CMOS SRAM WITH 8-NS SERIAL ACCESS TIME", IEEE Symposium On VLSI Circuits Digest Of Technical Papers, pp. 51-52, (June 1990)
I	J. Chun et al., "A 1.2ns GaAs 4K Read Only Memory", IEEE Gallium Arsenide Integrated Circuit Symposium Technical Digest, pp. 83-86, (Nov. 1988)
I	A. Fielder et al., "A 3 NS 1K X 4 STATIC SELF-TIMED GaAs RAM", IEEE Gallium Arsenide Integrated Circuit Symposium Technical Digest, pp. 67-70, (Nov. 1988)
TNT	JEDEC Standard No. 21C

EXAMINER <i>TAN T. NORTON</i>	DATE CONSIDERED <i>08/16/01</i>
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,945,516	07/31/90	Kashiyama	365	189.05	
	4,807,189	02/21/89	Pinkham et al.	365	189.05	
	4,586,167	04/21/89	Fujishima et al.	365	189.05	
	4,337,523	06/29/82	Hotta et al.	365	233	
	4,920,483	04/24/90	Pogue et al.	711	219	
	4,845,664	07/04/89	Aichelmann, Jr. et al.	711	105	
	4,750,839	06/14/88	Wang et al.	365	233	
TNT	4,513,370	04/23/85	Ziv et al.	709	225	
	4,975,872	12/04/90	Zaiki			
	5,109,498	04/28/92	Kamiya et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	F. Miller et. al., "HIGH FREQUENCY SYSTEM OPERATION USING SYNCHRONOUS SRAMS", Midcon/87 Conference Record, pp. 430-432 Chicago, IL, USA; 15-17 Sept. 1987
TNT	K. Ohta, "A 1-Mbit DRAM with 33-MHz Serial I/O Ports", IEEE Journal of Solid State Circuits, vol. 21 No. 5, pp. 649-654 (Oct. 1986)

EXAMINER TAN T. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PATENT 1449 (Marked) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,891,791	01/02/90	Iijima	365	189.01	
	4,092,665	05/30/78	Saran	341	63	
	4,799,199	01/17/89	Scales, III et al.	365	230.08	
	5,093,807	03/03/92	Hashimoto et al.	365	230.09	
	3,882,470	05/06/75	Hunter	365	200	
	4,315,308	02/09/82	Jackson	710	33	
	5,148,523	09/15/92	Harlin et al.	345	519	
	5,142,637	09/25/92	Harlin et al.	711	106	
	4,719,602	01/12/98	Hag et al.	365	189.05	
	4,785,394	11,15,88	Fischer	710	114	
	5,083,260	01/21/92	Tsuchiya	710	113	
	4,954,987	09/04/90	Auvinen et al.	365	189.02	
	4,675,850	06/23/87	Kumanoya et al.	365	230.01	
TNT	4,788,667	11/29/88	Nakano et al.	365	193	

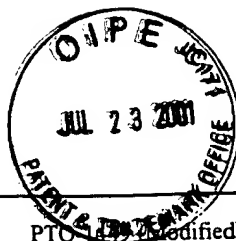
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	M. Bazes et. al., "A Programmable NMOS DRAM Controller for Microcomputer Systems with Dual-Port Memory and Error Checking and Correction", IEEE Journal of Solid State Circuits, vol. 18 No. 2, pp. 164-172 (Apr. 1983)
TNT	A. Agarwal, "An Evaluation of Directory Schemes for Cache Coherence", IEEE document pp.280-289 (1988)
TNT	K. Numata et. al. "New Nibbled-Page Architecture for High Density DRAM's", IEEE Journal of Solid State Circuits, vol. 24 No. 4, pp. 900-904 (Aug. 1989)

EXAMINER TNT T. N. Nguyen	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-152 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,663,735	05/05/87	Novak, et. al	345	533	
	4,672,470	06/09/87	Morimoto, et. al	386	16	
	4,719,505	01/12/88	Katznelson	348	502	
	4,825,287	04/25/89	Baji, et. al	348	720	
	4,845,677	07/04/89	Chappell, et. al	365	189.02	
	4,873,671	10/10/89	Kowshik, et. al	365	189.12	
	4,876,670	10/24/89	Nakabayashi, et. al	365	194	
TNT	4,901,036	02/13/90	Herold, et. al	331	25	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	EP 0218523	05/30/89	EPO			
TNT	EP 0282735	09/21/88	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Horowitz et al., "MIPS-X: A 20-MIPS Peak 32-Bit Microprocessor with ON-Chip Cache", IEEE J. Solid State Circuits, vol. SC-22, No. 5, pp. 790-798 (Oct. 1987)
TNT	Robert J. Lodi et al., "Chip and System Characteristics of a 2048-Bit MNOS-BORAM LSI Circuit," 1976 IEEE International Solid-State Circuits Conference (Feb. 18, 1976)

EXAMINER TNT T. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



TO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,979,145	12/18/90	Remington, et. al	711	106	
	5,009,481	04/23/91	Kinoshita, et. al	385	33	
	5,016,226	05/14/91	Hiwada, et. al	365	233	
	5,036,495	07/30/91	Busch, et. al	365	233	
	5,111,486	05/05/92	Oliboni, et. al	375	376	
	5,123,100	06/16/92	Hisada, et. al	711	401	
	5,142,376	08/25/92	Ogura	386	29	
TNT	5,276,846	01/04/94	Aichelmann Jr., et. al	711	165	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Whiteside, Frank, "A Dual-Port 65ns 64Kx4 DRAM with a 50MHz Serial Output," IEEE International Solid-State Circuits Conference Digest (Feb. 1986)

EXAMINER TAN T. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	5,301, 278	04/05/95	Bowater, et. al	711	5	
1	5,361,277	11/01/94	Grover	375	356	
TNT	5,684,753	11/04/97	Hashimoto, et al	365	233	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	WO 89/12936	12/28/89	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Pinkham, Raymond, "A High Speed Dual Port Memory with Simultaneous Serial and Random Mode Access for Video Applications," IEEE Journal of Solid-State Circuits, Vol. SC-19, No. 6, pp. 999-1007 (Dec. 1984)
1	Ishimoto, S. et al., "A 256K Dual Port Memory," ISSCC Digest of Technical Papers, p. 38-39 (Feb. 1985)
	Iqbal, Mohammad Shakaib, "Internally Timed RAMs Build Fast Writable Control Stores," Electronic Design, pp. 93-96 (August 25, 1988)
	Schnaitter, William M. et al., "A 0.5-GHz CMOS Digital RF Memory Chip," IEEE Journal of Solid-State Circuits, vol. SC-21, no. 5, pp. 720-726 (Oct. 1986)
	Bursky, Dave, "Advanced Self-Timed SRAM Pares Access Time to 5 ns," Electronic Design, pp. 145-147 (Feb. 22, 1990)
TNT	Tomoji Takada et al., "A Video Codec LSI for High-Definition TV Systems with One-Transistor DRAM Line Memories," IEEE Journal of Solid-State Circuits, Vol. 24, No. 6, pp. 1656-1659 (Dec. 1989)

EXAMINER TNT T. NUNEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,330,852	May 18, 1982	Redwine et al.	365	221	
	4,703,418	Oct. 27, 1987	James	710	32	
	4,726,021	Feb. 16, 1988	Horiguchi et al.	714	773	
	4,870,562	Sept. 26, 1989	Kimoto et al.	711	167	
	4,763,249	Aug. 09, 1988	Bomba et al	713	600	
	4,394,753	July 19, 1983	Penzel	365	236	
	4,785,428	Nov. 15, 1988	Bajwa	365	185.02	
TNT	4,680,738	July 14, 1987	Tam	365	189.02	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	S56-82961	July 7, 1981	Japan	---	---	
	S57-14922	Jan. 26, 1982	Japan	---	---	
	Sho 60-80193	May 8, 1983	Japan	---	---	
	Sho 60-55459	Mar. 30, 1985	Japan	---	---	
	S61-72350	April 14, 1986	Japan	---	---	
	S63-142445	June 14, 1988	Japan	---	---	
	B63-46864	Sept. 19, 1988	Japan	---	---	
TNT	S64-29951	Jan. 31, 1989	Japan	---	---	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER <i>TAN T. NEWSEN</i>	DATE CONSIDERED <i>08/16/01</i>
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	3,691,534	09/12/72	Veradi, et. al	365	78	
	3,771,145	11/06/73	Wiener	365	240	
	4,231,104	10/28/80	St.Clair	713	500	
	4,466,127	08/14/84	Ohgishi, et. al	455	182.1	
	4,536,795	08/20/85	Hirota, et. al	348	714	
	4,616,268	10/07/86	Shida, et. al	358	451	
	4,629,909	12/16/86	Cameron	327	211	
	4,631,659	12/23/86	Hayne, et. al	711	167	
TNT	4,648,102	03/03/87	Riso, et. al	375	356	

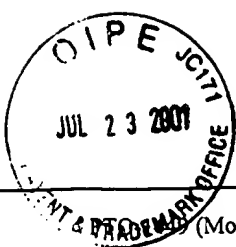
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	EP 0424774	05/02/91	EPO			
TNT	EP 0449052	03/29/90	EPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Takasugi, A. et al., "A Data-Transfer Architecture for Fast Multi-Bit Serial Access Mode DRAM," 11 th European Solid State Circuits Conference, Toulouse, France pp.161-165 (Sep. 1985)
	Amitai, Z., "Burst Mode Memories Improve Cache Design," WESCON/90 Conference Record, pp. 29-32 (Nov. 1990)
	Ikeda, Hiroaki et al., "100 MHz Serial Access Architecture for 4Md Field Memory," Symposium of VLSI Circuits, Digest of Technical Papers, pp. 11-12 (Jun. 1990)
TNT	Schmitt-Landsiedel, Doris, "Pipeline Architecture for Fast CMOS Buffer RAMs," IEEE Journal of Solid-State Circuits, Vol. 25, No. 3, pp. 741-747 (Jun. 1990)

EXAMINER <i>TAN T. NGUYEN</i>	DATE CONSIDERED <i>08/16/01</i>
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,482,999	11/13/84	Janson et al.	370	452	
	4,835,674	05/30/89	Collins et al.	709	214	
	5,193,193	03/09/93	Iyer	710	117	
	5,179,667	01/12/93	Iyer	711	167	
	4,926,385	05/15/90	Fujishima et al.	365	230.03	
	4,566,099	01/21/86	Magerl	370	509	
	4,803,621	02/07/89	Kelly	711	5	
	4,589,108	05/13/86	Billy	370	503	
	4,870,622	09/26/89	Aria et al.	365	230.02	
	5,134,699	07/28/92	Aria et al.	710	35	
	4,878,166	10/31/89	Johnson et al.	710	127	
	4,849,965	07/18/89	Chomel et al.	370	438	
TNT	4,851,990	07/25/89	Johnson et al.	710	100	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

--	--

EXAMINER TNT. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



TO-1449 (Unmodified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,048,673	09/13/77	Hendrie et al.	710	129	
/	4,748,617	05/31/88	Drewlo	359	121	
/	4,435,762	03/06/84	Milligan et al.	710	6	
/	4,839,801	06/13/89	Nicely et al.	710	35	
/	4,949,301	08/14/90	Joshi et al.	711	100	
/	4,047,246	09/06/77	Kerllenevich et al.	710	61	
/	5,029,124	07/02/91	Leahy et al.	710	105	
TNT	4,625,307	11/25/86	Tulpule et al.	370	402	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Watanabe, T.; "Session XIX: High Density SRAMS"; IEEE International Solid State Circuits Conference pp. 266-267 (1987)
/	Ohno, C.; "Self-Timed RAM: STRAM"; Fujitsu Sci. TechJ., 24, 4, pp 293-300 (Dec. 1988)
/	"Fast Packet Bus for Microprocessor Systems with Caches", IBM Technical Disclosure Bulletin, pp.279-282 (Jan 1989)
/	Gustavson, D. "Scalable Coherent Interface"; Invited Paper, COMPCON Spring '89, San Francisco, CA; IEEE, pp. 536-538 (Feb 27-Mar 3, 1989)
TNT	James, D.; "Scalable I/O Architecture for Busses"; IEEE, pp. 539-544 (April 1989)

EXAMINER TNT T. Newren	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



PTO-449 (Mod. 10-99) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	5,034,964	Jul. 23, 1991	Khan et al.	375	242	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
TNT	SHO 58-192154	Nov. 9, 1983	Japan	—	—	
	SHO 63-34795	Feb. 15, 1988	Japan	—	—	
	SHO 61-107453	May 26, 1986	Japan	—	—	
	SHO 63-91766	April 22, 1988	Japan	—	—	
	SHO 62-16289	Jan. 24, 1987	Japan	—	—	
TNT	SHO 61-160556	Oct. 4, 1986	Japan	—	—	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Robert J. Lodi et al., "MNOS-BORAM Memory Characteristics," IEEE Journal of Solid-State Circuits, vol. SC-11, No. 5, pp. 622-631 (Oct. 1976)
	Gregory Uvieghara et al., "An On-Chip Smart Memory for a Data-Flow CPU," IEEE Journal of Solid-State Circuits, vol. 25, No. 1, pp. 84-89 (Feb. 1990)
	Ray Pinkham et al., "A 128Kx8 70-MHz Multiport Video RAM with Auto Register Reload and 8x4 WRITE Feature," IEEE Journal of Solid State Circuits, vol. 23, no. 3, pp. 1133-1139 (Oct. 1988)
	Hans-Jurgen Mattausch et al., "A Memory-Based High-Speed Digital Delay Line with a Large Adjustable Length," IEEE Journal of Solid-State Circuits, vol. 23, no. 1, pp. 105-110 (Feb. 1988)
TNT	Kanopoulos, Nick and Jill H. Hallenbeck, "A First-In, First-Out Memory for Signal Processing Applications," IEEE Transactions on Circuits and Systems, Vol. CAS-33, No. 5, pp. 556-558 (May 1986)

EXAMINER TNT T. Newren	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
TNT	4,755,937	July 5, 1989	Glier	711	149	
TNT	4,875,192	Oct 17, 1989	Matsumoto	365	193	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Pelgrom et al., "A 32-kbit Variable-Length Shift Register for Digital Audio Application", IEEE Journal of Solid-State Circuits, vol. sc-22, no. 3, June 1987, pp 415-422
	Grover et al., "Precision Time-Transfer in Transport Networks Using Digital Crossconnect Systems", IEEE Paper 47.2 Globecom, 1988, pp 1544-1548
	Gustavson et al., "The Scalable Interface Project (Superbus)" (DRAFT), SCI-22 Aug 88-doc1 pp 1-16, August 22, 1988
	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-10Nov88-doc23, Norsk Data, Oslo, Norway, pp. 1-12, Nov. 10, 1988
	Knut Alnes, "SCI: A Proposal for SCI Operation", SCI-6Jan89-doc31, Norsk Data, Oslo, Norway, pp. 1-24, Jan 6, 1989
	Bakka et al., "SCI: Logical Level Proposals", SCI-6Jan89-doc32, Norsk Data, Oslo, Norway, pp. 1-20, Jan 6, 1989
	Knut Alnes, "Scalable Coherent Interface", SCI-Feb89-doc52, (To appear in Eurobus Conference Proceedings May 1989) pp. 1-8
	Boysel et al., "Four-Phase LSI Logic Offers New Approach to Computer Designer", Four-Phase Systems Inc. Cupertino, CA, Computer Design, April 1970, pp. 141-146,
TNT	Boysel et al., "Random Access MOS Memory Packs More Bits To The Chip", Electronics, Feb. 16, 1970, pp. 109-146

EXAMINER TNT T. Newen	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	Hansen et al., "A RISC MICROPROCESSOR WITH INTEGRAL MMU AND CACHE INTERFACE", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 145-148
	Moussouris et al., "A CMOS PROCESSOR WITH INTEGRATED SYSTEMS FUNCTIONS", MIPS Computer Systems, Sunnyvale, CA, IEEE 1986 pp 126-130
	"LR2000 High Performance RISC Microprocessor Preliminary" LSI Logic Corp. 1988, pp. 1-15
	"LR2010 Floating Point Accelerator Preliminary" LSI Logic Corp. 1988, pp 1-20
	"High Speed CMOS Databook", Integrated Device Technology Inc. Santa Clara, CA, 1988 pp 9-1 to 9-14
	Riordan T. "MIPS R2000 Processor Interface 78-00005(C)", MIPS Computer Systems, Sunnyvale, CA, June 30, 1987, pp 1-83
TNT	Moussouris, J. "The Advanced Systems Outlook-Life Beyond RISC: The next 30 years in high-performance computing", Computer Letter, July 31, 1989 (an edited excerpt from an address at the fourth annual conference on the Advanced Systems Outlook, in San Francisco, CA (June 5))

EXAMINER TAN T. NGUYEN	DATE CONSIDERED 08/16/01
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	

#12/105

PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. RA043D2C3C2	SERIAL NUMBER 09/779,296
	APPLICANT(S) FARMWALD ET AL.	
	FILING DATE FEBRUARY 8, 2001	GROUP ART UNIT 2818

DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TNT	"MIPS Chip Set Implements Full ECL CPU" Microprocessor Report, MicroDesign Resources Inc., Vol. 3: No. 12; Dec. 1989
	"R6000 System Bus & R6020 SBC Specification" MIPS Computer Systems Inc., Sunnyvale, CA, Aug 22, 1989
	R.A. Volz et al., "POSITION PAPER ON GLOBAL CLOCK FOR THE FUTUREBUS +", SCI - 1989 - doc-59, pp. 1-9
TNT	"ECL bus controller hits 266 Mbytes/s" Microprocessor Report, MicroDesign Resources Inc., Vol. 4: No. 1; Pg. 12, Jan. 24, 1990

EXAMINER TAN	DATE CONSIDERED 08/17/91
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	